/TLW-TEX2HE & /TLW-TEX3HE

USER MANUAL

Additional Manual for TEX-LCD series and TEX-LIGHT series

BROADCAST EQUIPMENT

Manufactured by R.V.R ELETTRONICA S.p.A. Italy

File Name: TLW_ING_1.0.indb

Version: 1.0

Date: 15/04/2011

Revision History

Date	Version	Reason	Editor
15/04/2011	1.0	First edition	J. H. Berti

/TLW-TEX2HE & /TLW-TEX3HE - User Manual
Version 1.0

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1. /TLW-TEX2HE & /TLW-TEX3HE Option

1.1 Preparation

1.1.1 Preliminary checks

Provide for the following (applicable to operating tests and putting into service):

√ Connection cable kit including:

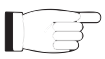
- Ethernet cable (cable with RJ45 connector, not included) for connection to ADSL router or LAN network;

or

- Crossover Ethernet cable (cable with RJ45 connector, not included) for direct connection to PC.

1.1.2 Connections

- Connect the **LAN** output of **/TLW-TEX2HE & /TLW-TEX3HE** option to the appropriate input of your ADSL router or LAN network. If the connecting device is different, identify an equivalent.



Note : *If you intend to connect it directly to a PC, it is necessary to use a crossover ethernet cable. This is a basic prerequisite to ensure equipment correct operation.*

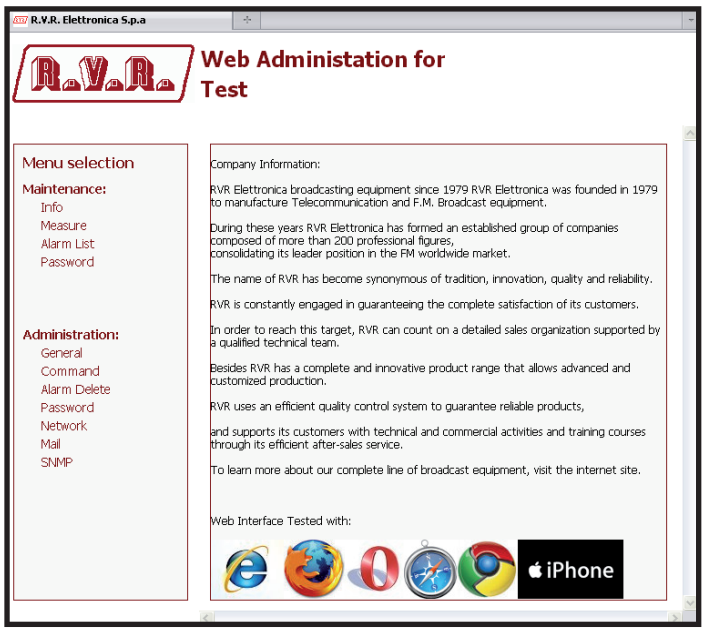
1.2 First Power-On and Set-Up

Perform this procedure upon first power-up and each time you make changes to the configuration this component is integrated into.

Once all connections previously described are performed, the equipment is ready for commissioning.

Follow the procedure below to open the **WUI** (Web User Interface):

1) Open your web browser on your PC, and connect to ***http://192.168.0.244*** address to connect to the **WUI** (if LAN IP address was previously modified, it is necessary to use the new one). At this point the following page opens:



Menu 1

By factory the RVR uses the following adjustments:

- IP address: **192.168.0.244**
- Netmask address: **255.255.255.0**
- Gateway address: **192.168.0.1**

Note : *If address* ***http://192.168.0.244*** *does not work, check and set IP address as* ***192.168.0.XXX*** *(where XXX is a figure between 0 and 255, excluding 244 that is* **/TLW-TEX2HE & /TLW-TEX3HE** *option default address). To change the IP address, follow the instructions in the manual or in the online guide and technical help, specific for the Operating System you use.*

2) If you have changed the access mode , enter the **User Name** and **Password** previously saved. Enter your credentials to log on as administrator, or maintenance, and then click **OK** on the item.

Note : *The username to log in as a maintenance is* ***user****, while the user name to log in as administrator is* ***admin****.*
The user names are not modifiable by the user.

Menu 2

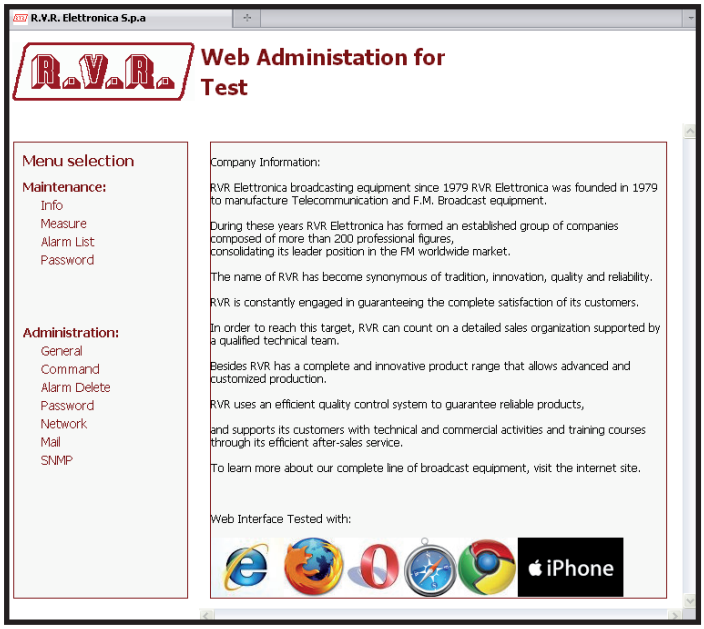
Note : *Log in as maintenance enables only readings inside the WUI.*

3) Now the interface is ready to remotely read data and modify the various settings of the equipment.

1.3 Web User Interface (WUI)

The **WUI** (Web User Interface) allows you to adjust, modify or display the configuration variables and the operation data.

Once logged in, you will see the **Main Menu** that shows the possible selections.



Menu 3

The image shows the **Main Menu** logging in normally. If you log in without administrative privileges, and then only as a maintainer, in the **WUI** will be available only the readings.

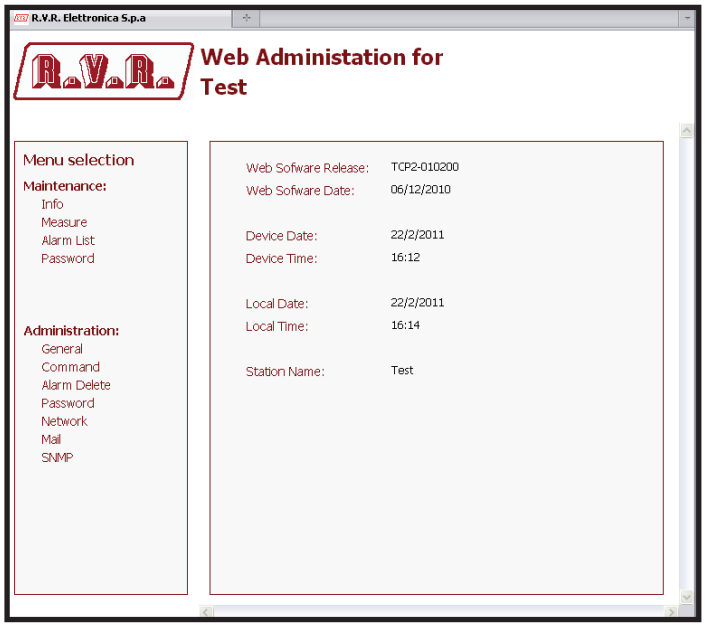
The page that appears is divided into three frames:

1) **Title**: it has the RVR logo and an identification of the current page displayed. It is located on the top of the page.
   If you still want return to the **Main Menu**, simply click on the RVR logo sited in all the submenus on top left.
2) **Navigation menu**: it allows you to select the page to display.
   To enter into a submenu, select the name and then click on the item to enter.
3) **Body**: area where the page displays information about the selected menu.

1.3.1 Info Menu - Maintenance

Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **General menu** (chap. 1.3.5) by logging in as administrator.

This page shows the user the data of the exciter connected to the **/TLW-TEX2HE & /TLW-TEX3HE** interface:



Menu 4

`WEB Software Release`
Shows the release of WEB firmware.

`WEB Software Date`
Shows the date of issue of WEB firmware.

`Device Date`
Shows the day stored on the exciter (dd/MM/yyyy).

`Device Time`
Shows the time stored on the exciter (hh:mm).

`Local Date`
Shows the day stored in your browser device (dd/MM/yyyy).

`Local Time`
Shows the time stored in your browser device (hh:mm).

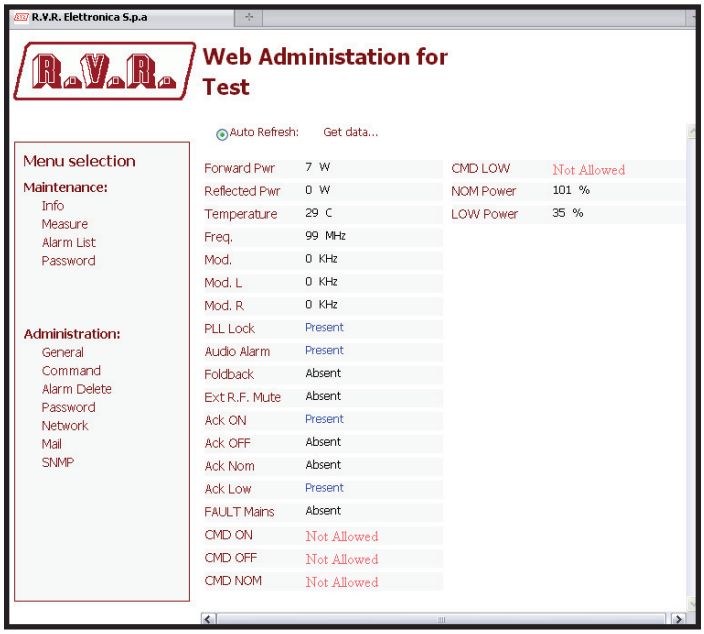
`Station Name`
Shows the ID name of transmitting station.

1.3.2 Measure Menu - Maintenance

Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **Command Menu** (chap. 1.3.6) by logging in as administrator.

The upper part allows you to enable or disable the Auto-refresh by clicking on the relevant box.
With Auto-refresh enabled the measures are taken every 3 seconds (“Get Data ..”) and gave available in a legible form by the current page (“Ready”).
With Auto-refresh disabled the measures are frozen (“Stopped”) at the time when you uncheck the box and gave available in a legible form by the current page.

This page shows the user the data of the exciter connected to the **/TLW-TEX2HE & /TLW-TEX3HE** interface:



Menu 5

`Forward Power`
: Shows forward power of exciter.

`Reflected Power`
: Shows reflected power of exciter.

`Temperature`
: Shows internal temperature reading of equipment.

`Freq.`
: Shows operating frequency of exciter.

`Mod.`
: Shows modulation of exciter.

`Mod.L`
: Shows modulation on left channel of exciter.

Mod. R
: Shows modulation on right channel of exciter.

PLL LOCK
: Shows the lock status at frequency set by PLL.

Audio Alarm
: Shows the status of an impasse due to excessive SWR.

Foldback
: Shows the triggered status of the foldback function (automatic reduction of output power).

Ext R.F. Mute
: Shows the status of power inhibition by an interlock signal.

Ack ON
: Shows the power on status of the exciter.

Ack OFF
: Shows the power off status of the exciter.

Ack Nom
: Shows the delivery status of fixed nominal power.

Ack Low
: Shows the delivery status of fixed reduced power.

FAULT Mains
: Shows the status of alarm conditions that affect the proper functioning.

CMD ON
: Not Used.

CMD OFF
: Not Used.

CMD Nom
: Not Used.

CMD Low
: Not Used.

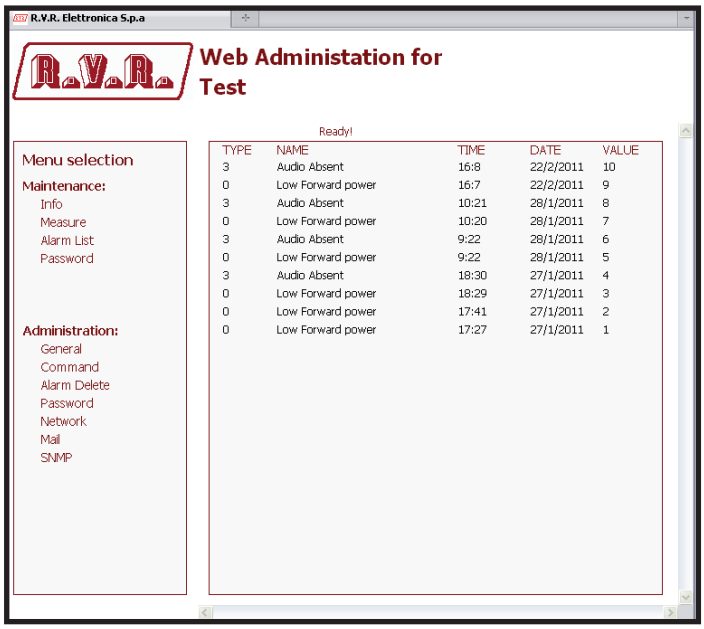
NOM Power
: Shows the efficiency about the adjustment of nominal power.

LOW Power
: Shows the efficiency about the adjustment of reduced power.

1.3.3 Alarm List Menu - Maintenance

Values found here are “live readings”, and as such they can not be modified. To change the settings, use the **Alarm Delete Menu** (chap. 1.3.7) by logging in as administrator.

This page shows the user the data of the exciter connected to the **/TLW-TEX2HE & /TLW-TEX3HE** interface:



Menu 7

`Type` Shows the alarm code.

`Name` Shows the description for the error that led to event recording.

`Time` Shows event recording time (hh:mm).

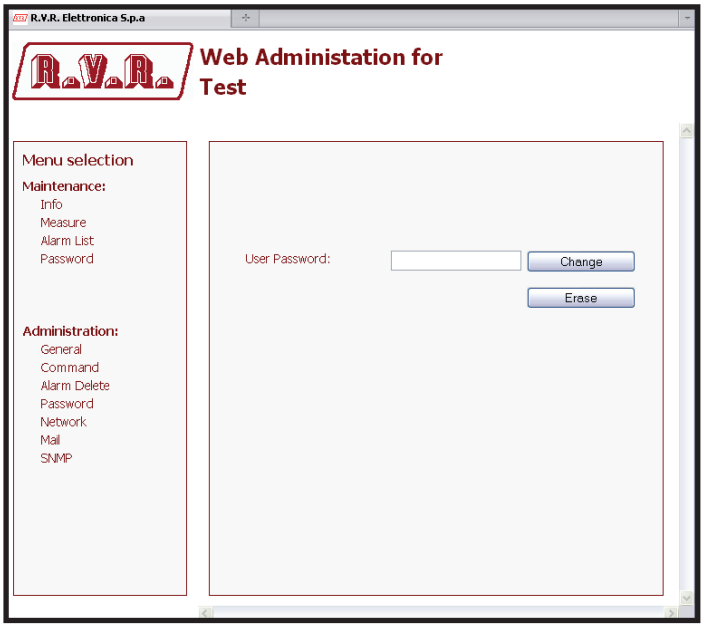
`Date` Shows the day event was recorded (dd/MM/yyyy).

`Value` Shows progressive number for event recording.

1.3.4 Password Menu - Maintenance

This page allows the configuration of login as a maintenance of **/TLW-TEX2HE & /TLW-TEX3HE** interface via WUI.

Please note that the User Name (**user**) can not be changed.



Menu 8

`Password`

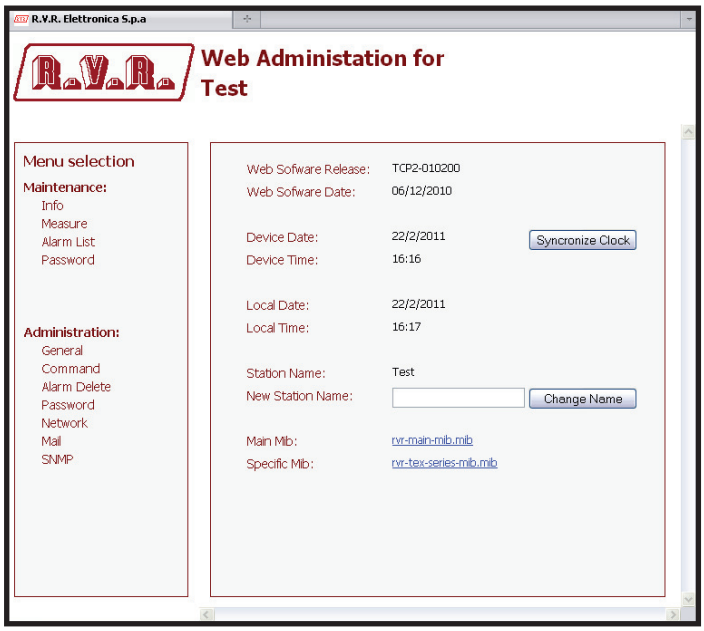
Shows and set the password for maintenance user (enables read-only parameter).
The **Erase** button allows you to delete the password set.

1.3.5 General Menu - Administrator

Note : *Access to this menu and modification of these parameters are only possible after login with administrator rights.*

This page not only shows the user the information about the exciter connected to **/TLW-TEX2HE & /TLW-TEX3HE** interface, but also allows setting various parameters.

Below will be described only items that allow the modification of the parameter, with respect to the **Information menu** (chap. 1.3.1). Press the buttons to confirm your choice, pushing the logo **RVR,** instead, or wait at the time-out, the parameter will be set to the previous one.



Menu 9

`Device Date/Time`

Allows you to align the time and date stored in the exciter with that of browser device, by pressing the **Synchronize Clock** button.

`New Station Name`

Setting of the station name. Write the name in the box that you want to assign, then press the **Change Name** button to apply the choice.

`Main Mib`

By pressing the MIB (Management Information Base) highlighted you can download onto your PC, or browser device, the general database for the management of devices in communications networks.

`Specific Mib`

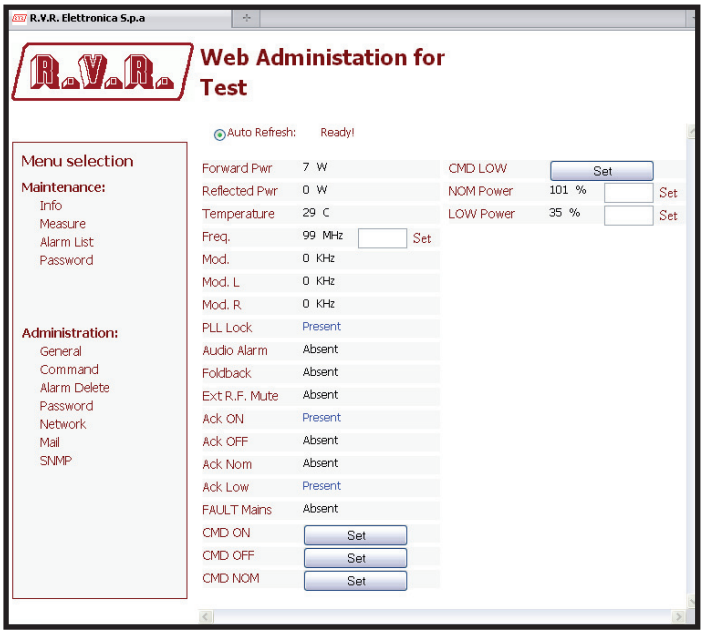
By pressing the MIB (Management Information Base) highlighted you can download onto your PC, or browser device, the specific database for the management of devices in communications networks.

1.3.6 Command Menu - Amministrazione

Note : *Access to this menu and modification of these parameters are only possible after login with administrator rights.*

This page not only shows the user the information about the exciter connected to **/TLW-TEX2HE & /TLW-TEX3HE** interface, but also allows setting various parameters.

Below will be described only items that allow the modification of the parameter, with respect to the **Measure menu** (chap. 1.3.2). Press the buttons to confirm your choice, pushing the logo **RVR,** instead, or wait at the time-out, the parameter will be set to the previous one.



Menu 10

`Freq.`

Remote adjustment of exciter frequency. This value, in MHz, can be modified according to one's own band in 0.1 MHz steps. Press **Set** to confirm the value inserted.

`CMD ON`

Press **Set** to change the logical state of the data.

`CMD OFF`

Press **Set** to change the logical state of the data.

`CMD Nom`

Press **Set** to change the logical state of the data.

`CMD Low`

Press **Set** to change the logical state of the data.

`NOM Power`

Remote adjustment regarding the nominal power of exciter. This value, in %, can be modified in the range 0 to 100, in steps of 1%. Press **Set** to confirm the value inserted.

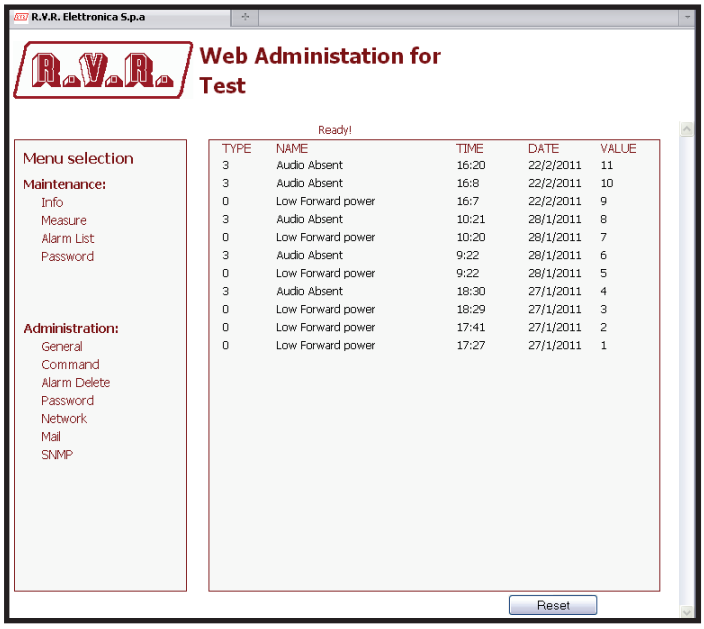
`LOW Power`

Remote adjustment regarding the reduced power of exciter. This value, in %, can be modified in the range 0 to 100, in steps of 1%. Press **Set** to confirm the value inserted.

1.3.7 Alarm Delete Menu - Amministrazione

Note : *Access to this menu and modification of these parameters are only possible after login with administrator rights.*

Within this menu you can view the most recent alarms stored by the system, a new event will cause an automatic cancellation of the oldest. Using the **Reset** item in the bottom right side of menu, you can delete the list of all pending alarms.



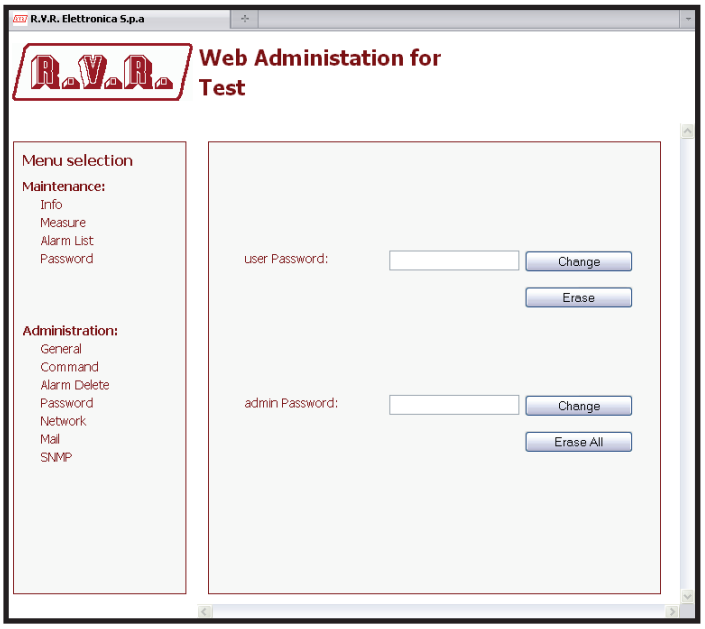
Menu 11

1.3.8 Password Menu - Administrator

Note : *Access to this menu and modification of these parameters are only possible after login with administrator rights.*

This page allows the configuration of login as an administrator and maintenance of **/TLW-TEX2HE & /TLW-TEX3HE** interface via WUI.

Please note that the User Name (**admin** for administrator, or **user** for maintenance) can not be changed.



Menu 12

`user Password`

Shows and set the password for user functions (parameter read-only enabling).
The **Erase** button allows you to delete the password set for maintenance.

`admin Password`

Shows and set the password for administrator functions (parameter reading and change enabling).
The **Erase All** button allows you to delete the password set both for the administrator and for the maintenance.

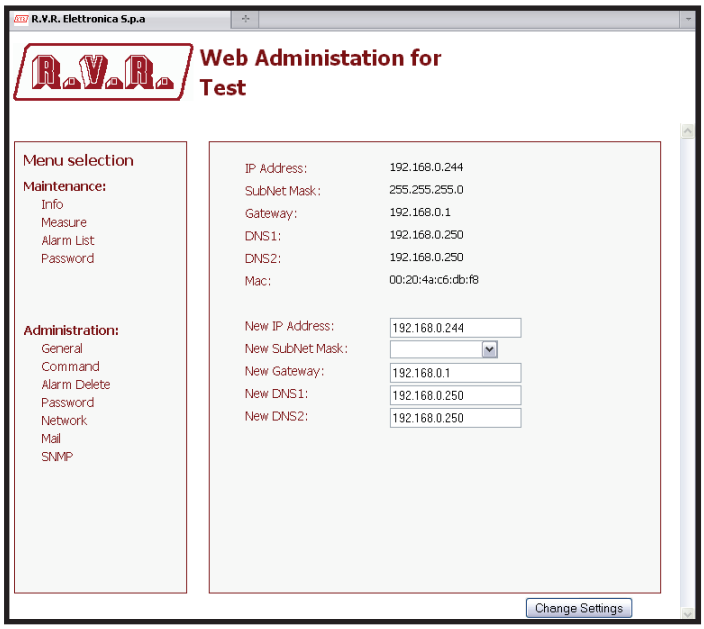
1.3.9 Network Menu - Administrator

Note : *Access to this menu and modification of these parameters are only possible after login with administrator rights.*

This page not only shows the user the information about **/TLW-TEX2HE & /TLW-TEX3HE** interface network connection, but also allows setting various parameters.

Press the **Change Settings** button to confirm selection; if you let timer to time out or press the **RVR** logo, the parameter setting will remain as previously set.

Note: *to make changes within these sub-menus you need to have thorough technical knowledge of network management. It is recommended to have changes performed by trained or qualified personnel.*



Menu 13

`IP address`

Shows the number that unequivocally identifies, within a single network, the devices connected to an IT network that uses the IP standard (Internet Protocol).

`Subnet Mask`

Shows the subnet mask, necessary for the computer that must communicate with another IP address to know if it should route packages toward the gateway of its local network or use the address of the receiver local network.

Gateway

Shows gateway address. In simpler networks, there is only one gateway that forwards to the internet network all the outbound traffic. In more complicated networks where many subnets are available, each of them refers to a gateway that will route data traffic towards the other subnets or forward it to other gateways.

DNS1 server

Shows the first DNS server address (Domain Name System); in case the server should change the server hosting a service, or it is necessary to change its IP address, it is enough to change the DNS record, without changing client settings.

DNS2 server

Shows the second DNS server address (Domain Name System); in case the server should change the server hosting a service, or it is necessary to change its IP address, it is enough to change the DNS record, without changing client settings.

MAC Address

Shows the MAC (Media Access Control) address; this address is uniquely assigned to the ethernet network card present on exciter. It can be useful if you want to add in your router, or firewall, a list of MAC addresses of network cards authorized to connect to the network.

New IP address

Set the new IP (Internet Protocol) number.

New Subnet Mask

Set the new subnet mask

New Gateway

Set the new gateway address.

DNS1 server

Set the new first DNS server address (Domain Name System).

DNS2 server

Set the new second DNS server address (Domain Name System).

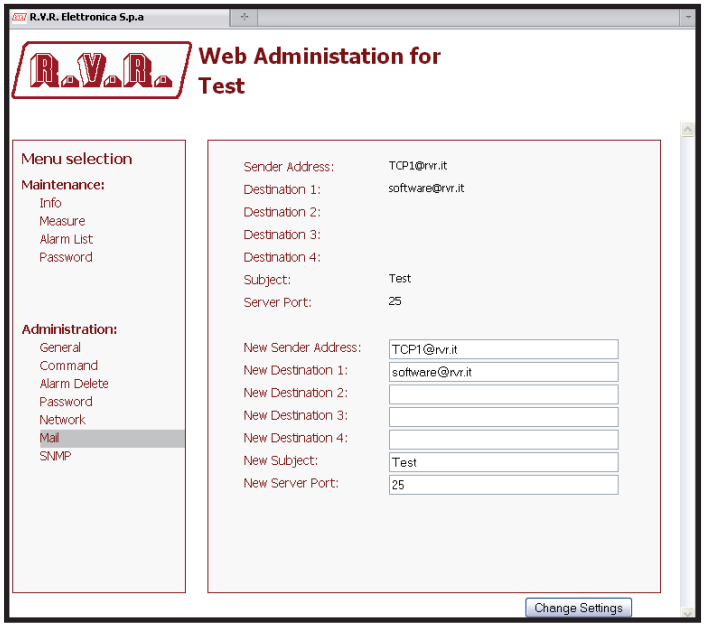
1.3.10 Mail Menu (SMTP) - Administrator

Note : *Access to this menu and modification of these parameters are only possible after login with administrator rights.*

This page not only shows the user the information about **/TLW-TEX2HE & /TLW-TEX3HE** interface network connection, but also allows setting various parameters.

Press the **Change Settings** button to confirm selection; if you let timer to time out or press the **RVR** logo, the parameter setting will remain as previously set.

Note: *to make changes within these sub-menus you need to have thorough technical knowledge of network management. It is recommended to have changes performed by trained or qualified personnel.*



Menu 14

`Sender Address`
Shows the transmission address used for sending messages.

`Destination 1`
Shows the first address to which alarm warning mail messages shall be sent.

`Destination 2`
Shows the second address to which alarm warning mail messages shall be sent.

`Destination 3`

Shows the third address to which alarm warning mail messages shall be sent.

`Destination 4`

Shows the fourth address to which alarm warning mail messages shall be sent.

`Subject`

Shows the description of the “subject” field of the mail.

`Server Port`

Shows the port used by TCP transmission protocol.

`New Sender Address`

Set the new transmission address used for sending messages.

`New Destination 1`

Set the new first address to which alarm warning mail messages shall be sent.

`New Destination 2`

Set the new second address to which alarm warning mail messages shall be sent

`New Destination 3`

Set the new third address to which alarm warning mail messages shall be sent

`New Destination 4`

Set the new fourth address to which alarm warning mail messages shall be sent

`New Subject`

Set the new description of the “subject” field of the mail.

`New Server Port`

Set the new port used by TCP transmission protocol.

1.3.11 SNMP Menu - Administrator

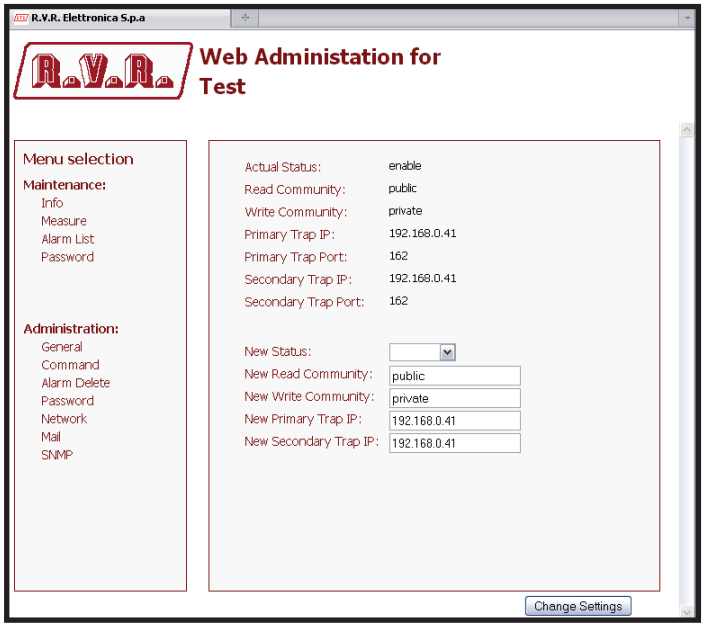
Note : *Access to this menu and modification of these parameters are only possible after login with administrator rights.*

This page not only shows the user the information about **/TLW-TEX2HE & /TLW-TEX3HE** interface network connection, but also allows setting various parameters.

Press the **Change Settings** button to confirm selection; if you let timer to time out or press the **RVR** logo, the parameter setting will remain as previously set.

For more information regarding this menu, please read the chapter the **SNMP Telemetry** (Chapter 1.4).

Note: *to make changes within these sub-menus you need to have thorough technical knowledge of network management. It is recommended to have changes performed by trained or qualified personnel.*



Menu 15

`Actual Status`

Shows the status of SNMP (Simple Network Management Protocol) service.

`Read Community`

Shows the set string for Read command that allows you to monitor the different variables of the system managed.

`Write Community`

Shows the set string for Write command that allows you to monitor the different variables of the system managed.

`Primary TRAP IP`

Shows the first identification number of the IP address set to send the TRAP signaling that configures the agent to send a special message to the occurrence of certain events.

`Primary TRAP Port`

Shows the first port number set by the TCP transmission protocol for the TRAP signaling that configures the agent to send a special message to the occurrence of certain events. The port can not be changed.

`Secondary TRAP IP`

Shows the second identification number of the IP address set to send the TRAP signaling that configures the agent to send a special message to the occurrence of certain events.

`Secondary TRAP Port`

Shows the second port number set by the TCP transmission protocol for the TRAP signaling that configures the agent to send a special message to the occurrence of certain events. The port can not be changed. .

`New Status`

Set the status of SNMP (Simple Network Management Protocol) service.

`New Read Community`

Set the string for Read command.

`New Write Community`

Set the string for Write command.

`New Primary TRAP IP`

Set the first identification number of the IP address set to send the TRAP signaling.

`New Secondary TRAP IP`

Set the second identification number of the IP address set to send the TRAP signaling.

1.4 SNMP Telemetry

SNMP (Simple Network Management Protocol) is a worlwide protocol that allows the management and supervision of the equipment connected to the network.

Measurements and commands are described by a MIB (Management Information Base), which is a list of OID (Object Identifi er). Each OID is a variable that can be written (SET) or read (GET) through a NMS (Network Management System) compatible with SNMP.

The MIB is a text fi le written in ASN.1 and it is imported from the NMS in order to know what OID can be expected by the AGENT and how to interpret the information received.

Note: *The user can not freely distribute the MIB, unless written authorization issued by the manufacturer. The MIB is property of the manufacturer.*

Note: *The MIB files are downloaded in the web section or requested separately to the manufacturer.*

The SNMP version used in this application is the v2, then is also compatible with v1 NMS systems, except in the TRAP receiving section.

Here is the list of MIB necessary for equipments of RVR equipments:

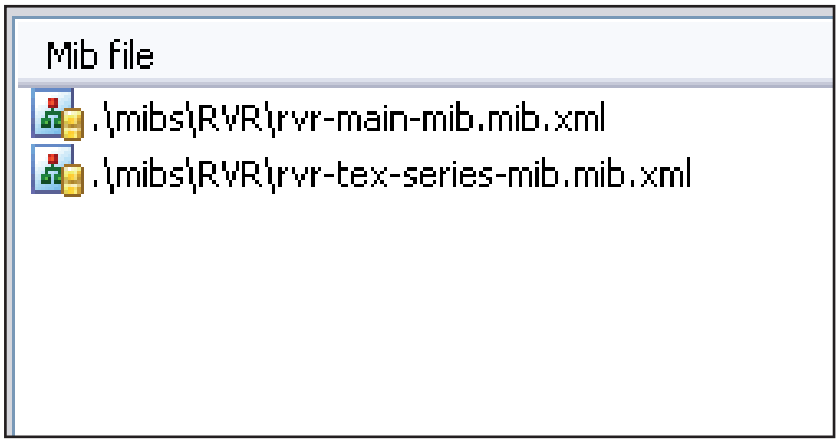


Figure 1

Note: *Use a MIB BROWSER (not included) to use the MIB of RVR equipments.*

1.4.1 Reading of the Measures (Read)

Each transmitter has a range of measures that can be read. Please refer to MIB for a detailed description of each measurement.

Note: *In the following examples is used a proprietary MIB browser, but any MIB Browser can be used.*

In the following example, the measure of Forward Power is indicated as READONLY:

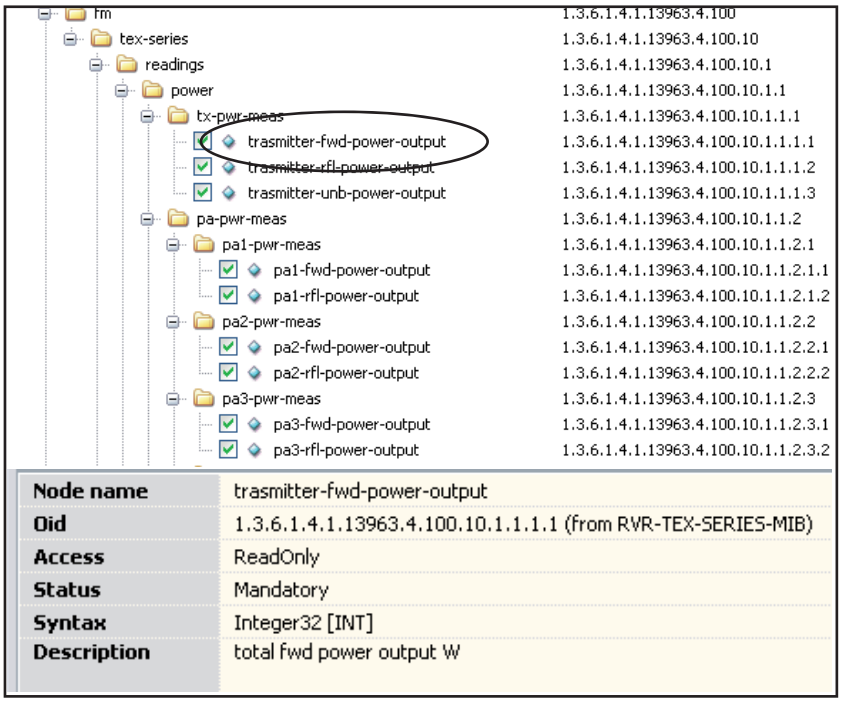


Figure 2

Into the MIB are specified the range and description of each variable, in this case the forward power and possible alarms, which are reported into the description box of browser. If the READ ONLY and MANDATORY conditions are present, they mean that the value is been obtained.

1.4.2 Settings of the Measures (Write)

Similarly to readings and settings of the measurements, the commands have a set of OID that are only in writing mode.

Tipically the value of command are read as “1”; the user must send a “2” as value to send a command. No other values are accepted as a command.

Usually the commands are one-shot toggle. In other words, if the transmitter is turn “ON” (value “2” on set-transmitter-on), the next command is a turn “OFF” (value “2” on set-transmitter-off).

In the following example, the command of Set-Transmitter-On is indicated as READWRITE:

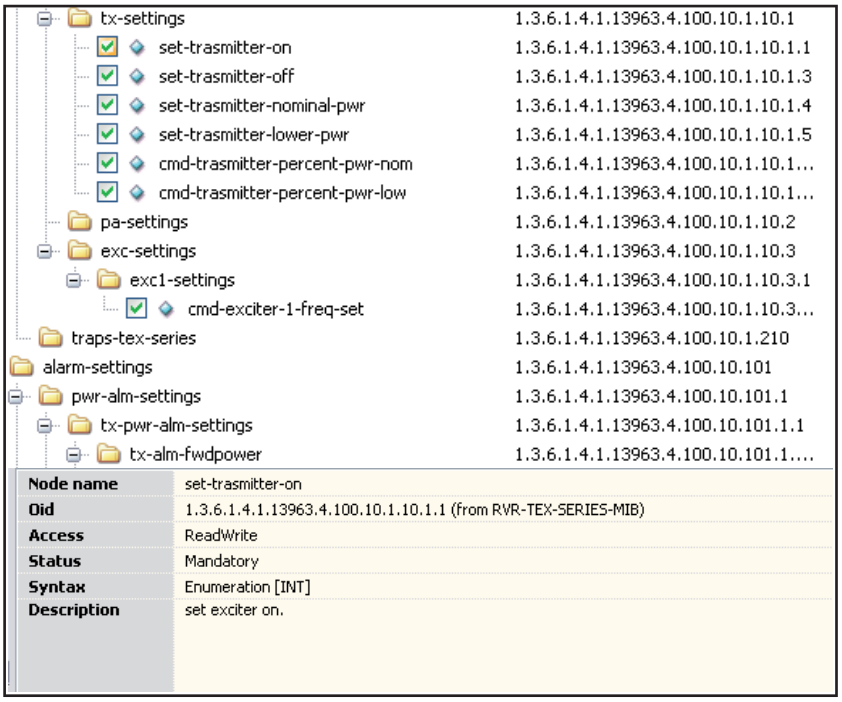


Figure 3

Into the MIB are specified the range and description of each variable, in this case is shown the description of command brought in information box of your browser.

1.4.3 Settings of the TRAP

For each TRAP can be set:

- Enable/disable the send of TRAP.
- The maximum value (MAX) is the fi xed point beyond which is sent a TRAP.
- The minimum value (MIN) is the fi xed point below which is sent a TRAP.
- The hysteresis value is a nominal value that the system adds (or subtracts) to real value in order to exit from alarm condition.
  In other words, it is helpful to avoid situations of continuous alarm, if readout is very close to the set point alarm.

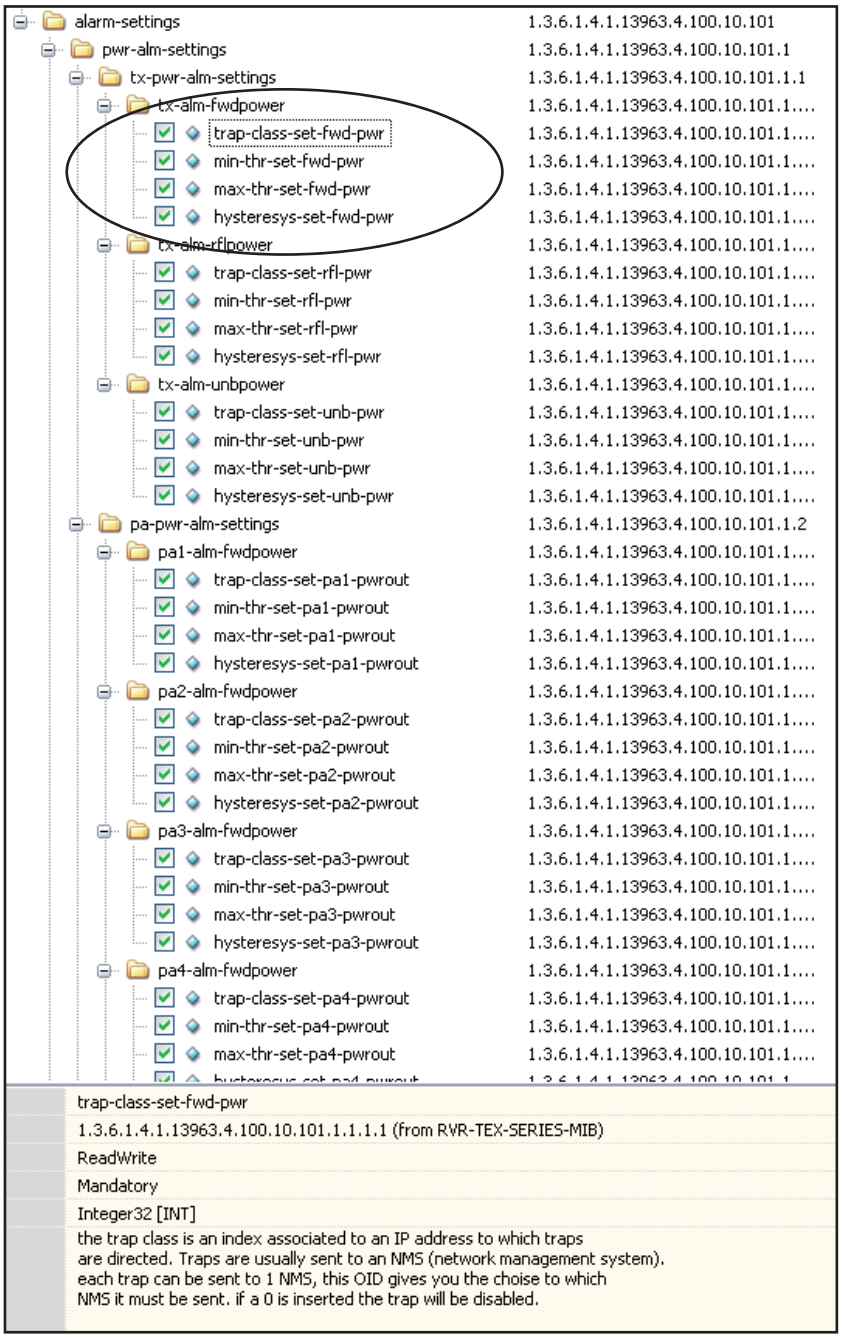


Figure 4

1.4.4 Sending of the TRAP

The system properly configured is capable to sending TRAP up to two different addresses. Different addresses can be set using the OID presents in the main MIB.

The generation and sending happens if the parameter exceeds the maximum and minimum set up and as you can see the hysteresis is a protected area in which the alarm is not sent.

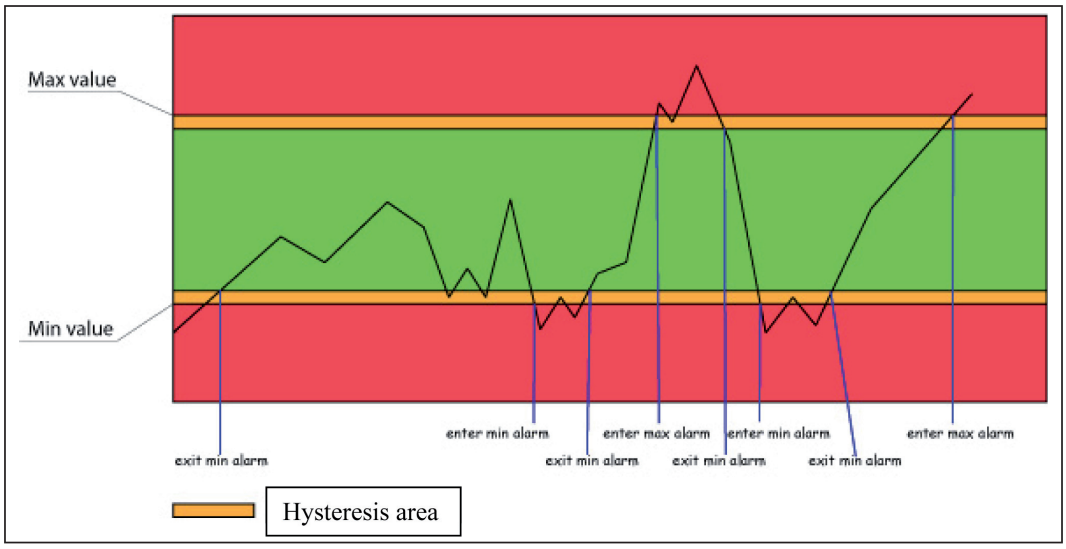


Figure 5

***Note:** the hysteresis value shall be properly adjusted to not overlap to the distance between the minimum (MIN) and the maximum value (MAX).*

Inside the generated TRAP are indicated:

- Progressive number of the TRAP.
- Date of generation.
- Time of generation.
- The OID and its instantaneous value.

The TRAP that you can set are the ones shown in the picture below:

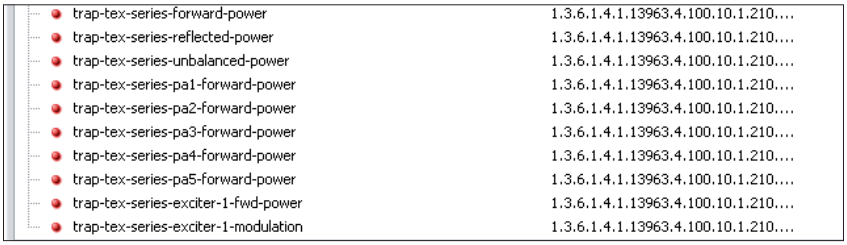


Figure 6

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ISO 9001:2000
Certified Quality System

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